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**Fax Cover Sheet**

**Date:** 11/2/2004

**To:** Lamont M Spooner, Art Unit 2654  
Fax (703) 746-3392

**From:** Mark Farrell, Lee & Hayes,  
Voice (509) 324-9256 x243

**Re:** 09/607,786 Attorney Docket MS1-441US  
Request for Examiner Interview over Telephone

**Number of Pages including cover sheet:** 3

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PTOL-413A (09-04)  
Approved for use through 07/31/2006. OMB 0851-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

**Applicant Initiated Interview Request Form**

Application No.: 09/607,786 First Named Applicant: JIANFENG GAO  
Examiner: LAMONT M SPOONER Art Unit: 2654 Status of Application: FINAL

**Tentative Participants:**

(1) LAMONT SPOONER (2) MARK FARRELL  
(3) \_\_\_\_\_ (4) \_\_\_\_\_

Proposed Date of Interview: Nov 3-11 Proposed Time: \_\_\_\_\_ (AM/PM)

**Type of Interview Requested:**

(1) ☒ Telephonic (2) ☐ Personal (3) ☐ Video Conference

Exhibit To Be Shown or Demonstrated: ☒ YES ☐ NO

If yes, provide brief description: PROPOSED CLAIM

**Issues To Be Discussed**

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) _____	<u>1</u>	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☒ Continuation Sheet Attached

**Brief Description of Arguments to be Presented:**

PROPOSED CLAIM IS PATENTABLE OVER PRIOR ART. (see next page)

An interview was conducted on the above-identified application on \_\_\_\_\_.

**NOTE:** This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

Mark C. Farrell

Applicant/Applicant's Representative Signature

Examiner/SPE Signature

MARK C. FARRELL  
Typed/Printed Name of Applicant or Representative

45,988  
Registration Number, if applicable

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

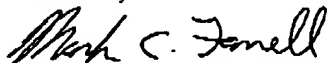
If you need assistance in completing the form call 1-800-PTO-0190 and select option 2

Serial # 09/607,786 / A System and Method for Joint Optimization of Language Model Performance and Size / Inventors Jainfeng Gao et al. / Attorney's Docket MS1-441US

A method of decreasing memory usage in a computing device while increasing performance and application specificity of a language model, comprising:

- a) segmenting relatively large language corpora into multiple segments of equal size;
- b) selecting a relatively tiny initial tuning sample of application specific data [such as a few application-specific documents] for training a seed model, wherein the seed model is to be used for ranking the multiple segments from the language corpora;
- c) training the seed model according to the tuning sample;
- d) ranking each of the multiple segments according to a perplexity comparison with the seed model;
- e) selecting some of the multiple segments that possess a low perplexity;
- f) augmenting the tuning sample with the selected segments;
- g) repeating steps c through f until the seed model achieves a predetermined size [or sufficient application specificity];
- h) to decrease the memory usage while increasing the performance and application specificity of the language model,
  - 1) filtering the language corpora according to the seed model to select low-perplexity segments,
  - 2) combining data from the low-perplexity segments,
  - 3) training the language model according to the combined data; and
- i) pruning the language model utilizing an entropy based cutoff algorithm that uses only information embedded in the language model itself.

Thank You,



Lee & Hayes, PLLC; Mark Farrell Reg. 45,988